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Continuous Improvement of Program Outcomes through Assessing Student Demonstration of Workplace Competencies

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Continuous Improvement of Program Outcomes through Assessing Student Demonstration of Workplace Competencies

Abstract

Student-centered, learning-based educational systems place demands on institutions to provide evidence that students have achieved competency in defined program outcomes. Experiential learning environments provide a platform for students to demonstrate competency of program learning outcomes. Key actions that provide quantitative measures to assess competency of learning outcomes ensure the ability to assess changes in learning outcome competencies. Data collected from these assessments translate into achievement of the program outcomes. The ability to convert workplace competencies into curriculum strengths and deficiencies is valuable for continuous improvement of the program curricula. In this presentation, I will present my study how ISU has converted student and supervisor competency assessment surveys into quantitative measurements that is used to improve the program curricula.

Disciplines

Agriculture | Bioresource and Agricultural Engineering | Engineering Education | Higher Education | Science and Mathematics Education

Comments

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Administration

Continuous Improvement of Program Outcomes through Assessing Student Demonstration of Workplace Competencies

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Need: Student-centered, learning-based educational systems place demands on institutions to provide evidence that students have achieved competency in defined program outcomes. Experiential learning environments provide a platform for students to demonstrate competency of program learning outcomes. Key actions that provide quantitative measures to assess competency of learning outcomes ensure the ability to assess changes in learning outcome competencies. Data collected from these assessments translate into achievement of the program outcomes. The ability to convert workplace competencies into curriculum strengths and deficiencies is valuable for continuous improvement of the program curricula. In this presentation, I will present my study how ISU has converted student and supervisor competency assessment surveys into quantitative measurements that is used to improve the program curricula.

Overview: Experiential learning environments are an important resource for providing students with practical work experience. These environments also provide student's additional opportunity to learn and apply knowledge and skills that they have learned during their classroom education. An equally important component of experiential learning is the ability to demonstrate prior knowledge. This study investigates the feedback gained from the experiential learning experience and translates that information into quantitative data that supports continuous improvement of the program curricula. This longitudinal study spans ten years, between spring 2001 and spring 2011 semesters. Analysis at the aggregate and program levels provide strong evidence to evaluate student competency of college and program learning outcomes. Continuous improvement of the engineering curricula depends on reliable measures for assessing student competency. The assessment of workplace competencies provides the curriculum development process with the information needed to continuously monitor and adjust to changes required for program learning outcomes.

Major Points:

- Need for quantitative evidence that students are able to demonstrate learning outcomes in the workplace.
- Ability to translate workplace competencies into continuous improvement of the program curricula.
- Identification of experiential learning by program constituents as the most important opportunity for students to learn and demonstrate program outcome competencies
- Addressing reliability of student self-assessment of workplace competencies
- Program interest in workplace competencies and the impact on curriculum development
- Relational change of self-assessment to supervisor assessment measured over 10-year cycle of continuous improvement
- Relationship between of program outcomes provide measurement for student learning in the classroom
- Relationship between internship self-assessment and graduate self-assessment of workplace competencies to support post-graduate competency assessment for curriculum development.

Summary: Attendees will understand how the demonstration of workplace competencies by students in an experiential learning environment is effectively used to assess ISU program learning objectives and provide valuable information in the continuous improvement of the program curricula. Data collected through on-line student and supervisor assessment surveys is translated into quantifiable evidence used in the continuous improvement of the program curricula.